



Watershed Condition Framework for Wild and Scenic Rivers



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Wild and Scenic Rivers (WSRs)

- ▶ Background
 - ▶ National WSRS and the 1968 WSR Act
 - ▶ 2018 WSR Water Quality Assessment
- ▶ WSR Condition Framework
 - ▶ Goals and proposed approach
 - ▶ Watershed attributes
 - ▶ Pilot watersheds
- ▶ Key Points





National Wild and Scenic Rivers System





WSR Special Characteristics

- ▶ Water Quality
- ▶ Free-flowing Condition
 - ▶ Flowing in natural condition without impoundment, diversion, channelization or modification of the waterway
- ▶ Outstandingly Remarkable Values (ORVs)
 - ▶ Scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values



Scenery



Recreation



Fish and Wildlife



Cultural Resources



1968 Wild and Scenic Rivers Act

- ▶ Section 10
Each river “...shall be administered in such manner as to *protect and enhance* the values which caused it to be included...”
- ▶ Section 12(c)
River managers “...shall cooperate with the EPA Administrator and with the appropriate State water pollution control agencies for the *purpose of eliminating or diminishing the pollution* of waters of the river...”
- ▶ Section 11
River managers “...shall assist, advise and cooperate with States or their political subdivisions, landowners, private organizations, or individuals to plan, protect and manage river resources...”





State Water Quality Assessments

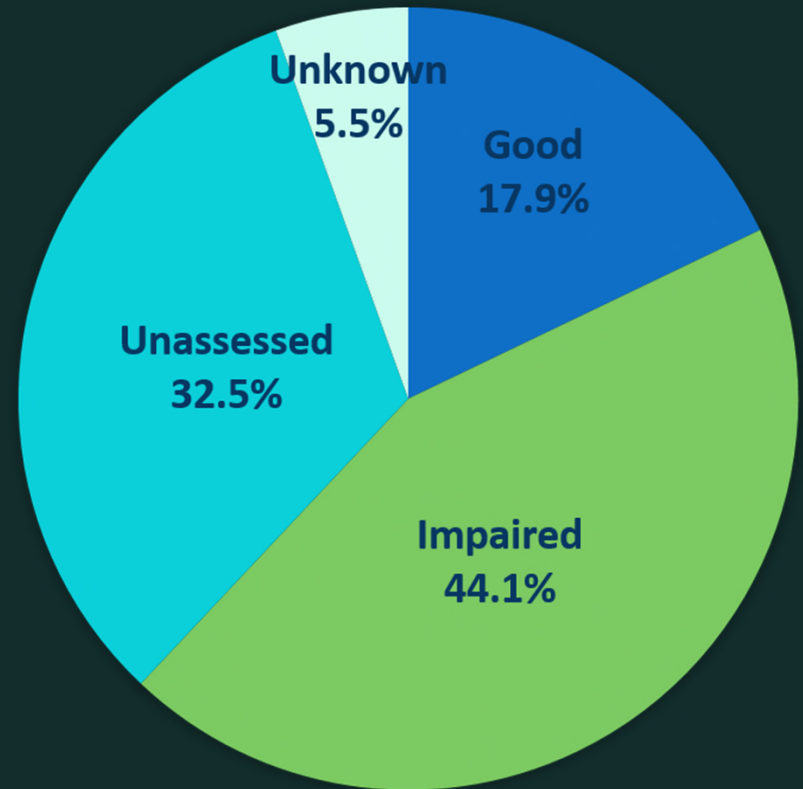
- ▶ Prior to 2018, no comprehensive assessment of water quality for WSRs
- ▶ In 2018, 50th Anniversary of the WSRs Act, NPS completed an assessment
- ▶ Based on State 305B/303D reports
 - ▶ Nationally available information on WQ
 - ▶ Objective, reliable, technically sound
 - ▶ Report on whether a river meets its water quality standards (based on designated use)
 - ▶ Identify sources of degradation, if known





WSR Water Quality Status

- ▶ 44% of all river miles impaired (or 123 of the 208 rivers)
- ▶ 38% of river miles unknown or unassessed
- ▶ 18% of river miles are considered good
- ▶ 6 of the original 8 WSRs are impaired
- ▶ Sources of impairment often originate outside the river corridor





How do we **protect and enhance** WSR values
and **eliminate or diminish** pollution?





WSR Watershed Framework Goals

- ▶ Integrate protection of WSRs into EPA and state water quality programs
 - ▶ Consistent with WSR Act Section 12(c) - to work with EPA and state agencies
- ▶ Establish partnerships with state, regional and local organizations
 - ▶ Consistent with WSR Act Section 11 - to assist, advise, and cooperate with states and local organizations to plan, protect and manage WSR resources
- ▶ Improve our capacity to protect healthy WSRs and restore unhealthy components of WSRs





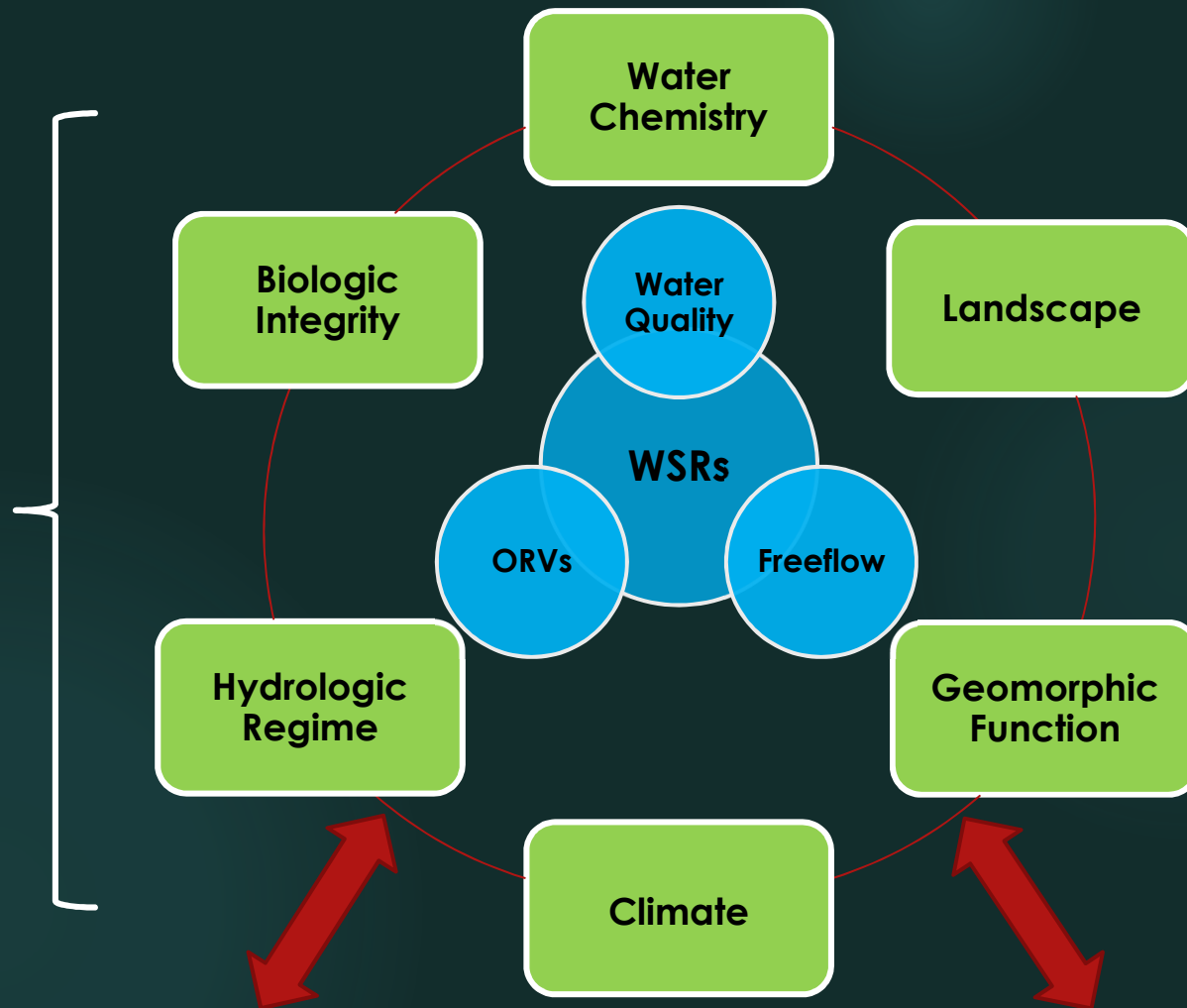
WSR Watershed Framework Approach

- ▶ Evaluate watershed condition
 - ▶ Identify metrics based on key watershed functions
 - ▶ Use nationally available datasets where available
 - ▶ Augment geospatial data with local data
- ▶ Communicate with state and local agencies
 - ▶ Find common values
 - ▶ Strengthen partnerships
 - ▶ Share resources
- ▶ Develop and implement strategic actions





Scientific
Components



Societal
Components





National Park Service Vital Signs

Examples of vital signs monitored in parks

Vital Sign	Examples of Measurements
Weather and climate	Temperature, precipitation, wind speed, ice on/off dates
Water chemistry	pH, temperature, dissolved oxygen, conductivity
Invasive/exotic plants	Early detection, presence/absence, total area
Birds	Species, distribution, abundance
Vegetation	Plant community diversity, relative species/guild abundance, structure/age class, incidence of disease
Aquatic macroinvertebrates	Species composition and abundance
Fire and fuel dynamics	Fire frequency, size, severity, total area
Soil function and dynamics	Soil nutrients, biological soil crust communities, soil aggregate stability
Insect pests	Insect-related mortality, distribution and extent of standing dead or diseased trees, early detection
Coastal features and processes	Rate of shoreline change, sea surface elevations, subsidence
Water toxics	Organic and inorganic toxics, heavy metals

Could we establish vital signs for wild and scenic rivers?





Key Points

- ▶ The WSR Act established an anti-degradation policy for WSRs
- ▶ Long term sustainability of WSRs requires working outside the designated river boundary
- ▶ We are directed to work with EPA, states and local organizations to manage our rivers and to eliminate pollution
- ▶ Watershed plans that involve local stakeholders have been shown to be much more successful





Next Steps

Phase 1 – Preliminary Planning and Scoping

- ▶ Identify potential partners and stakeholders
- ▶ Find out what is already being done
- ▶ Begin characterizing the watersheds
 - ▶ Compile existing data and resources
 - ▶ Begin evaluating WSR watershed condition
 - ▶ Identify data needs and gaps
 - ▶ Develop outreach materials
- ▶ Communicate and engage with partners
- ▶ Develop common goals and prioritize actions

Thank you